

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

HOBBSS OCD

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		7. If Unit of CA/Agreement, Name and/or No.
2. Name of Operator RMR Operating, LLC.		8. Well Name and No. Madera 25 Federal Com #2H
3a. Address 2515 McKinney Ave Suite 900 Dallas, Texas 75201	3b. Phone No. (include area code) 214 - 871 - 0400	9. API Well No. 30-025-40633
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL - 300 FNL and 2080 FEL Unit B - Section 25, T-26S, R-34E BHL - 300 FSL and 2080 FEL Lot 2 - Section 36, T-26S, R-34E		10. Field and Pool or Exploratory Area Jabalina Southwest Brushy Canyon
		11. County or Parish, State Lea County/New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

- Drill lateral from Section 25, T - 26S, R - 34E across section line to Section 36, T - 26S, R- 34E. (See attached surface survey, and attached directional survey)
- Change the well name from the Madera 25 Federal #2H to Madera Federal Com. #2H. Communitization Agreement will be file at the completion of the drilling operation.
- Run 9 5/8" 40# L-80 LT & C to 5,325' (Base of Larmar Lime)
- Drill 8 3/4" pilot hole to 9, 350' , Log interval from 9,350 to 5,325 with GRNDL and DLL-MSFL, continue GRNL to surface.
- Spot cement plug from TD 9350' to 8,300' (See attached cmt program)
(7" casing, deep intermediate will be removed from program)
- Drill 8 3/4" curve KOP 8,477' MD to TVD 9,050' drill 8 3/4" lateral to total measured depth 15,815' with TVD 9,050'.
- Run new 5 1/2" 17# HCP 110 GBOD open hole completion system with a hydraulic set cmt stage tool in the curve 8550' and a mechanical cmt stage tool set at 5700'. (See attached cement program and openhole completion program)
The 5 1/2" casing has a collapse design factor 2.18, Internal yield Factor 2.28, Tension design factor 3.55. The casing will be set 150' off bottom 15665' for the first completion stage of the 27 stage system. The 5 1/2" casing will be ran the complete length of the well.

AMENDED
BOTTOM
HOLE
LOCATION

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Tommy W. Folsom		Title EVP and Director of E&P
Signature 		Date 09/24/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office

APPROVED

OCT 22 2013

Chris Wells

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

MAR 05 2014

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1282 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

OCT 23 2013

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name MADERA "25" FEDERAL			⁶ Well Number 2H
⁷ OGRID No. 281085		⁸ Operator Name RMR OPERATING, LLC			⁹ Elevation 3196.8

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	25	26 S	34 E		330	NORTH	2080	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2/0	36	26 S	34 E		330	SOUTH	2080	EAST	LEA
¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature _____ Date _____ Printed Name _____ E-mail Address _____			
18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. FEBRUARY 28 2013 Date of Survey _____ Signature and Seal of Professional Surveyor _____ Certificate Number: FIDELION F. JARAVALLO, PLS 12797 SURVEY NO. 869A			

Diagram showing well location and acreage dedication plat. The diagram includes a grid of sections (25, 36) and lots (1, 2, 3, 4). Key locations marked include:

- NW CORNER SEC. 25: LAT. = 32°01'17.796"N, LONG. = 103°25'55.750"W
- N/4 CORNER SEC. 25: LAT. = 32°01'17.734"N, LONG. = 103°25'25.066"W
- NE CORNER SEC. 25: LAT. = 32°01'17.654"N, LONG. = 103°24'54.429"W
- MADERA 25 FEDERAL #2H: ELEV. = 3196.8', LAT. = 32°01'14.452"N (NAD83), LONG. = 103°25'18.587"W
- W/4 CORNER SEC. 25: LAT. = 32°00'51.745"N, LONG. = 103°25'55.734"W
- E/4 CORNER SEC. 25: LAT. = 32°00'54.618"N, LONG. = 103°24'54.419"W
- NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) IN DEGREES MINUTES DECIMAL SECONDS FORMAT. BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST (NAD83) COORDINATES MODIFIED TO SURFACE.
- SW CORNER SEC. 25: LAT. = 32°00'25.578"N, LONG. = 103°25'55.731"W
- S/4 CORNER SEC. 25: LAT. = 32°00'25.502"N, LONG. = 103°25'25.048"W
- SE CORNER SEC. 25: LAT. = 32°00'25.383"N, LONG. = 103°24'54.421"W
- LOT 4: SW CORNER SEC. 36: LAT. = 32°00'01.039"N, LONG. = 103°25'55.724"W
- LOT 3: BOTTOM OF HOLE: LAT. = 32°00'04.230"N, LONG. = 103°25'18.572"W
- LOT 2 - 34.75 AC. BOTTOM OF HOLE: LAT. = 32°00'01.029"N, LONG. = 103°24'54.418"W
- LOT 1: SE CORNER SEC. 36: LAT. = 32°00'01.029"N, LONG. = 103°24'54.418"W



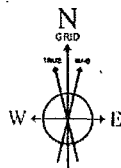
Red Mountain Resources

Location: Lea County, NM
 Field: (Madera) *com*
 Facility: Madera 25 Federal No.2H
 Slot: No.2H SHL
 Well: No.2H
 Wellbore: No.2H PWB

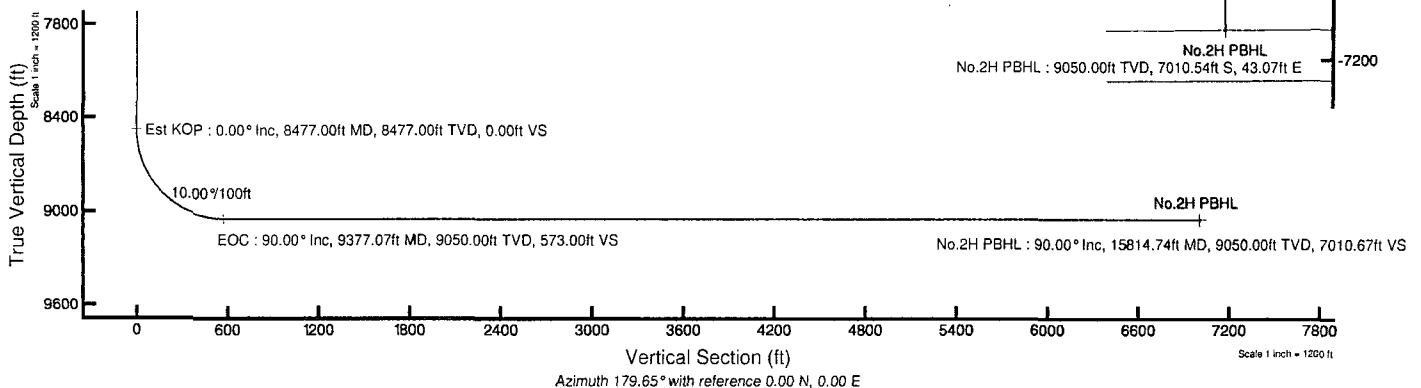
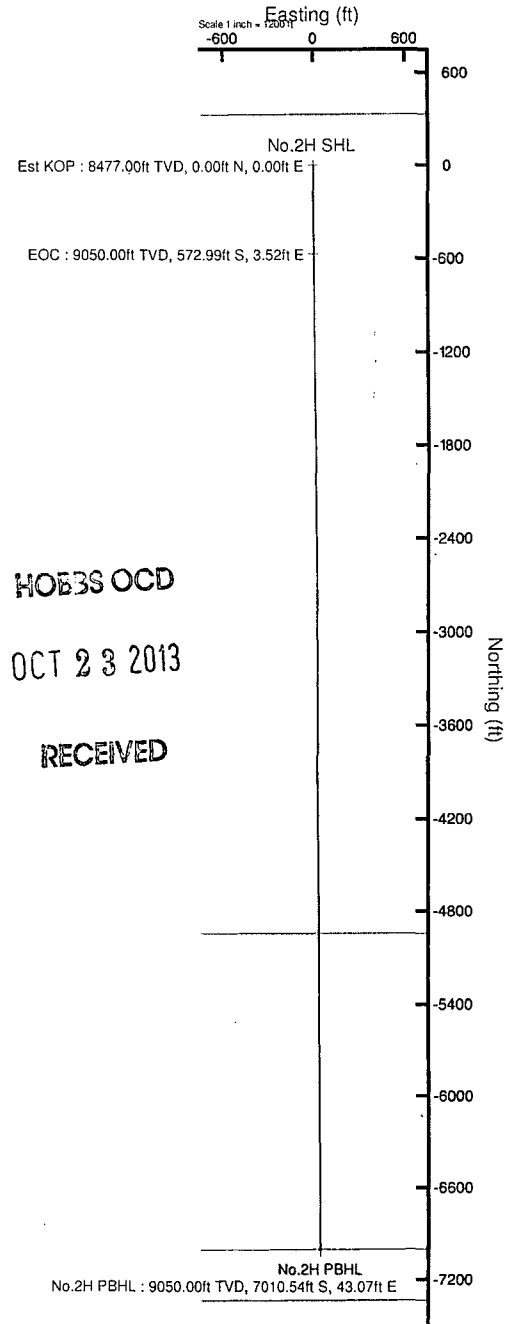


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	23.00	0.000	179.648	23.00	0.00	0.00	0.00	0.00
Est KOP	8477.00	0.000	179.648	8477.00	0.00	0.00	0.00	0.00
EOC	9377.07	90.000	179.648	9050.00	-572.99	3.52	10.00	573.00
No.2H PBHL	15814.74	90.000	179.648	9050.00	-7010.54	43.07	0.00	7010.67

Plot reference wellpath is Rev-B.0	
True vertical depths are referenced to Rig on No.2H SHL (KB)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.2H SHL (KB)	North Reference: Grid north
Rig on No.2H SHL (KB) to Mean Sea Level: 3219.8 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.2H SHL): -3196.8 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: genbry on 02/21/2013



BGGM (1945.0 to 2014.0) Dip: 59.94° Field: 48323.2 nT
 Magnetic North is 7.40 degrees East of True North (at 02/21/2013)
 Grid North is 0.48 degrees East of True North
 To correct azimuth from True to Grid subtract 0.48 degrees
 To correct azimuth from Magnetic to Grid add 6.91 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 6.91 = 96.91





Planned Wellpath Report

Rev-B.0
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REFERENCE WELLPATH IDENTIFICATION

Operator	Red Mountain Resources	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Madera)	Wellbore	No.2H PWB
Facility	Madera 25 Federal No.2H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	1	Report Generated	02/21/2013 at 3:48:53 PM
Convergence at slot	0.48° East	Database/Source file	WA Midland/No.2H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W
Facility Reference Pt			823834.56	372454.20	32°01'14.452"N	103°25'18.587"W
Field Reference Pt			823834.56	372454.20	32°01'14.452"N	103°25'18.587"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.2H SHL (KB) to Facility Vertical Datum	23.00ft
Horizontal Reference Pt	Facility Center	Rig on No.2H SHL (KB) to Mean Sea Level	3219.80ft
Vertical Reference Pt	Rig on No.2H SHL (KB)	Rig on No.2H SHL (KB) to Mud Line at Slot (No.2H SHL)	23.00ft
MD Reference Pt	Rig on No.2H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.65°



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REFERENCE WELLPATH IDENTIFICATION

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Facility	Madera 25 Federal No.2H		

WELLPATH DATA (170 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	179.648	0.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
23.00	0.000	179.648	23.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Tie On
123.00†	0.000	179.648	123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
223.00†	0.000	179.648	223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
323.00†	0.000	179.648	323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
423.00†	0.000	179.648	423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
523.00†	0.000	179.648	523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
623.00†	0.000	179.648	623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
723.00†	0.000	179.648	723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
823.00†	0.000	179.648	823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
923.00†	0.000	179.648	923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1023.00†	0.000	179.648	1023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1049.00†	0.000	179.648	1049.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Rustler
1123.00†	0.000	179.648	1123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1223.00†	0.000	179.648	1223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1323.00†	0.000	179.648	1323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1423.00†	0.000	179.648	1423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1523.00†	0.000	179.648	1523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1623.00†	0.000	179.648	1623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1723.00†	0.000	179.648	1723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1823.00†	0.000	179.648	1823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
1923.00†	0.000	179.648	1923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2023.00†	0.000	179.648	2023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2123.00†	0.000	179.648	2123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2223.00†	0.000	179.648	2223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2323.00†	0.000	179.648	2323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2423.00†	0.000	179.648	2423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2523.00†	0.000	179.648	2523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2623.00†	0.000	179.648	2623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2723.00†	0.000	179.648	2723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	



Planned Wellpath Report

Rev-B.0
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REFERENCE WELLPATH IDENTIFICATION

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Facility	Madera 25 Federal No.2H		

WELLPATH DATA (170 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2823.00†	0.000	179.648	2823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
2923.00†	0.000	179.648	2923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3023.00†	0.000	179.648	3023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3123.00†	0.000	179.648	3123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3223.00†	0.000	179.648	3223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3323.00†	0.000	179.648	3323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3423.00†	0.000	179.648	3423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3523.00†	0.000	179.648	3523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3623.00†	0.000	179.648	3623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3723.00†	0.000	179.648	3723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3823.00†	0.000	179.648	3823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
3923.00†	0.000	179.648	3923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4023.00†	0.000	179.648	4023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4123.00†	0.000	179.648	4123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4223.00†	0.000	179.648	4223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4323.00†	0.000	179.648	4323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4423.00†	0.000	179.648	4423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4523.00†	0.000	179.648	4523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4623.00†	0.000	179.648	4623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4723.00†	0.000	179.648	4723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4823.00†	0.000	179.648	4823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
4923.00†	0.000	179.648	4923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5023.00†	0.000	179.648	5023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5123.00†	0.000	179.648	5123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5223.00†	0.000	179.648	5223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5323.00†	0.000	179.648	5323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5351.00†	0.000	179.648	5351.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Lamar Lime
5395.00†	0.000	179.648	5395.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Delaware Sand
5423.00†	0.000	179.648	5423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5523.00†	0.000	179.648	5523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	



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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	Red Mountain Resources	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Madera)	Wellbore	No.2H PWB
Facility	Madera 25 Federal No.2H		

WELLPATH DATA (170 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5623.00†	0.000	179.648	5623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5723.00†	0.000	179.648	5723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5823.00†	0.000	179.648	5823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
5923.00†	0.000	179.648	5923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6023.00†	0.000	179.648	6023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6123.00†	0.000	179.648	6123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6223.00†	0.000	179.648	6223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6323.00†	0.000	179.648	6323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6423.00†	0.000	179.648	6423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6523.00†	0.000	179.648	6523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6618.00†	0.000	179.648	6618.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Cherry Canyon
6623.00†	0.000	179.648	6623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6723.00†	0.000	179.648	6723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6823.00†	0.000	179.648	6823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
6923.00†	0.000	179.648	6923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7023.00†	0.000	179.648	7023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7123.00†	0.000	179.648	7123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7223.00†	0.000	179.648	7223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7323.00†	0.000	179.648	7323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7423.00†	0.000	179.648	7423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7523.00†	0.000	179.648	7523.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7623.00†	0.000	179.648	7623.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7723.00†	0.000	179.648	7723.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7823.00†	0.000	179.648	7823.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
7831.00†	0.000	179.648	7831.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Brushy Canyon
7923.00†	0.000	179.648	7923.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
8023.00†	0.000	179.648	8023.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
8123.00†	0.000	179.648	8123.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
8223.00†	0.000	179.648	8223.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
8323.00†	0.000	179.648	8323.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Red Mountain Resources	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Madera)	Wellbore	No.2H PWB
Facility	Madera 25 Federal No.2H		

WELLPATH DATA (170 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8423.00†	0.000	179.648	8423.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	
8477.00	0.000	179.648	8477.00	0.00	0.00	0.00	823834.56	372454.20	32°01'14.452"N	103°25'18.587"W	0.00	Est KOP
8523.00†	4.600	179.648	8522.95	1.85	-1.85	0.01	823834.57	372452.35	32°01'14.434"N	103°25'18.587"W	10.00	
8623.00†	14.599	179.648	8621.43	18.50	-18.50	0.11	823834.67	372435.70	32°01'14.269"N	103°25'18.587"W	10.00	
8723.00†	24.598	179.648	8715.51	52.00	-52.00	0.32	823834.88	372402.20	32°01'13.937"N	103°25'18.588"W	10.00	
8763.83†	28.681	179.648	8752.00	70.30	-70.30	0.43	823834.99	372383.89	32°01'13.756"N	103°25'18.589"W	10.00	Brushy Canyon "B"
8823.00†	34.597	179.648	8802.35	101.33	-101.33	0.62	823835.18	372352.87	32°01'13.449"N	103°25'18.590"W	10.00	
8923.00†	44.597	179.648	8879.31	164.99	-164.98	1.01	823835.57	372289.21	32°01'12.819"N	103°25'18.591"W	10.00	
8951.35†	47.432	179.648	8899.00	185.39	-185.38	1.14	823835.70	372268.81	32°01'12.618"N	103°25'18.592"W	10.00	Brushy Canyon "C"
9023.00†	54.596	179.648	8944.04	241.04	-241.03	1.48	823836.04	372213.16	32°01'12.067"N	103°25'18.593"W	10.00	
9055.29†	57.825	179.648	8962.00	267.87	-267.87	1.65	823836.20	372186.33	32°01'11.801"N	103°25'18.594"W	10.00	Brushy Canyon "D"
9123.00†	64.595	179.648	8994.59	327.18	-327.17	2.01	823836.57	372127.02	32°01'11.214"N	103°25'18.596"W	10.00	
9223.00†	74.595	179.648	9029.41	420.78	-420.78	2.59	823837.14	372033.42	32°01'10.288"N	103°25'18.598"W	10.00	
9323.00†	84.594	179.648	9047.45	519.01	-519.00	3.19	823837.75	371935.19	32°01'09.316"N	103°25'18.601"W	10.00	
9377.07	90.000	179.648	9050.00	573.00	-572.99	3.52	823838.08	371881.21	32°01'08.782"N	103°25'18.602"W	10.00	EOC
9423.00†	90.000	179.648	9050.00	618.93	-618.92	3.80	823838.36	371835.27	32°01'08.327"N	103°25'18.603"W	0.00	
9523.00†	90.000	179.648	9050.00	718.93	-718.92	4.42	823838.97	371735.28	32°01'07.338"N	103°25'18.606"W	0.00	
9623.00†	90.000	179.648	9050.00	818.93	-818.92	5.03	823839.59	371635.28	32°01'06.348"N	103°25'18.609"W	0.00	
9723.00†	90.000	179.648	9050.00	918.93	-918.92	5.65	823840.20	371535.28	32°01'05.359"N	103°25'18.611"W	0.00	
9823.00†	90.000	179.648	9050.00	1018.93	-1018.91	6.26	823840.82	371435.28	32°01'04.369"N	103°25'18.614"W	0.00	
9923.00†	90.000	179.648	9050.00	1118.93	-1118.91	6.87	823841.43	371335.28	32°01'03.380"N	103°25'18.617"W	0.00	
10023.00†	90.000	179.648	9050.00	1218.93	-1218.91	7.49	823842.05	371235.29	32°01'02.390"N	103°25'18.619"W	0.00	
10123.00†	90.000	179.648	9050.00	1318.93	-1318.91	8.10	823842.66	371135.29	32°01'01.401"N	103°25'18.622"W	0.00	
10223.00†	90.000	179.648	9050.00	1418.93	-1418.91	8.72	823843.28	371035.29	32°01'00.411"N	103°25'18.625"W	0.00	
10323.00†	90.000	179.648	9050.00	1518.93	-1518.91	9.33	823843.89	370935.29	32°00'59.421"N	103°25'18.627"W	0.00	
10423.00†	90.000	179.648	9050.00	1618.93	-1618.90	9.95	823844.50	370835.29	32°00'58.432"N	103°25'18.630"W	0.00	
10523.00†	90.000	179.648	9050.00	1718.93	-1718.90	10.56	823845.12	370735.30	32°00'57.442"N	103°25'18.633"W	0.00	
10623.00†	90.000	179.648	9050.00	1818.93	-1818.90	11.17	823845.73	370635.30	32°00'56.453"N	103°25'18.635"W	0.00	
10723.00†	90.000	179.648	9050.00	1918.93	-1918.90	11.79	823846.35	370535.30	32°00'55.463"N	103°25'18.638"W	0.00	
10823.00†	90.000	179.648	9050.00	2018.93	-2018.90	12.40	823846.96	370435.30	32°00'54.474"N	103°25'18.641"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Red Mountain Resources	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Madera)	Wellbore	No.2H PWB
Facility	Madera 25 Federal No.2H		

WELLPATH DATA (170 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10923.00†	90.000	179.648	9050.00	2118.93	-2118.89	13.02	823847.58	370335.30	32°00'53.484"N	103°25'18.643"W	0.00	
11023.00†	90.000	179.648	9050.00	2218.93	-2218.89	13.63	823848.19	370235.31	32°00'52.495"N	103°25'18.646"W	0.00	
11123.00†	90.000	179.648	9050.00	2318.93	-2318.89	14.25	823848.80	370135.31	32°00'51.505"N	103°25'18.649"W	0.00	
11223.00†	90.000	179.648	9050.00	2418.93	-2418.89	14.86	823849.42	370035.31	32°00'50.516"N	103°25'18.651"W	0.00	
11323.00†	90.000	179.648	9050.00	2518.93	-2518.89	15.48	823850.03	369935.31	32°00'49.526"N	103°25'18.654"W	0.00	
11423.00†	90.000	179.648	9050.00	2618.93	-2618.88	16.09	823850.65	369835.31	32°00'48.536"N	103°25'18.657"W	0.00	
11523.00†	90.000	179.648	9050.00	2718.93	-2718.88	16.70	823851.26	369735.32	32°00'47.547"N	103°25'18.659"W	0.00	
11623.00†	90.000	179.648	9050.00	2818.93	-2818.88	17.32	823851.88	369635.32	32°00'46.557"N	103°25'18.662"W	0.00	
11723.00†	90.000	179.648	9050.00	2918.93	-2918.88	17.93	823852.49	369535.32	32°00'45.568"N	103°25'18.665"W	0.00	
11823.00†	90.000	179.648	9050.00	3018.93	-3018.88	18.55	823853.10	369435.32	32°00'44.578"N	103°25'18.667"W	0.00	
11923.00†	90.000	179.648	9050.00	3118.93	-3118.87	19.16	823853.72	369335.33	32°00'43.589"N	103°25'18.670"W	0.00	
12023.00†	90.000	179.648	9050.00	3218.93	-3218.87	19.78	823854.33	369235.33	32°00'42.599"N	103°25'18.673"W	0.00	
12123.00†	90.000	179.648	9050.00	3318.93	-3318.87	20.39	823854.95	369135.33	32°00'41.610"N	103°25'18.675"W	0.00	
12223.00†	90.000	179.648	9050.00	3418.93	-3418.87	21.00	823855.56	369035.33	32°00'40.620"N	103°25'18.678"W	0.00	
12323.00†	90.000	179.648	9050.00	3518.93	-3518.87	21.62	823856.18	368935.33	32°00'39.631"N	103°25'18.681"W	0.00	
12423.00†	90.000	179.648	9050.00	3618.93	-3618.87	22.23	823856.79	368835.34	32°00'38.641"N	103°25'18.683"W	0.00	
12523.00†	90.000	179.648	9050.00	3718.93	-3718.86	22.85	823857.41	368735.34	32°00'37.651"N	103°25'18.686"W	0.00	
12623.00†	90.000	179.648	9050.00	3818.93	-3818.86	23.46	823858.02	368635.34	32°00'36.662"N	103°25'18.689"W	0.00	
12723.00†	90.000	179.648	9050.00	3918.93	-3918.86	24.08	823858.63	368535.34	32°00'35.672"N	103°25'18.691"W	0.00	
12823.00†	90.000	179.648	9050.00	4018.93	-4018.86	24.69	823859.25	368435.34	32°00'34.683"N	103°25'18.694"W	0.00	
12923.00†	90.000	179.648	9050.00	4118.93	-4118.86	25.30	823859.86	368335.35	32°00'33.693"N	103°25'18.697"W	0.00	
13023.00†	90.000	179.648	9050.00	4218.93	-4218.85	25.92	823860.48	368235.35	32°00'32.704"N	103°25'18.699"W	0.00	
13123.00†	90.000	179.648	9050.00	4318.93	-4318.85	26.53	823861.09	368135.35	32°00'31.714"N	103°25'18.702"W	0.00	
13223.00†	90.000	179.648	9050.00	4418.93	-4418.85	27.15	823861.71	368035.35	32°00'30.725"N	103°25'18.705"W	0.00	
13323.00†	90.000	179.648	9050.00	4518.93	-4518.85	27.76	823862.32	367935.35	32°00'29.735"N	103°25'18.707"W	0.00	
13423.00†	90.000	179.648	9050.00	4618.93	-4618.85	28.38	823862.93	367835.36	32°00'28.746"N	103°25'18.710"W	0.00	
13523.00†	90.000	179.648	9050.00	4718.93	-4718.84	28.99	823863.55	367735.36	32°00'27.756"N	103°25'18.713"W	0.00	
13623.00†	90.000	179.648	9050.00	4818.93	-4818.84	29.61	823864.16	367635.36	32°00'26.766"N	103°25'18.715"W	0.00	
13723.00†	90.000	179.648	9050.00	4918.93	-4918.84	30.22	823864.78	367535.36	32°00'25.777"N	103°25'18.718"W	0.00	
13823.00†	90.000	179.648	9050.00	5018.93	-5018.84	30.83	823865.39	367435.36	32°00'24.787"N	103°25'18.721"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Red Mountain Resources	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Madera)	Wellbore	No.2H PWB
Facility	Madera 25 Federal No.2H		

WELLPATH DATA (170 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13923.00†	90.000	179.648	9050.00	5118.93	-5118.84	31.45	823866.01	367335.37	32°00'23.798"N	103°25'18.723"W	0.00	
14023.00†	90.000	179.648	9050.00	5218.93	-5218.84	32.06	823866.62	367235.37	32°00'22.808"N	103°25'18.726"W	0.00	
14123.00†	90.000	179.648	9050.00	5318.93	-5318.83	32.68	823867.23	367135.37	32°00'21.819"N	103°25'18.728"W	0.00	
14223.00†	90.000	179.648	9050.00	5418.93	-5418.83	33.29	823867.85	367035.37	32°00'20.829"N	103°25'18.731"W	0.00	
14323.00†	90.000	179.648	9050.00	5518.93	-5518.83	33.91	823868.46	366935.37	32°00'19.840"N	103°25'18.734"W	0.00	
14423.00†	90.000	179.648	9050.00	5618.93	-5618.83	34.52	823869.08	366835.38	32°00'18.850"N	103°25'18.736"W	0.00	
14523.00†	90.000	179.648	9050.00	5718.93	-5718.83	35.13	823869.69	366735.38	32°00'17.861"N	103°25'18.739"W	0.00	
14623.00†	90.000	179.648	9050.00	5818.93	-5818.82	35.75	823870.31	366635.38	32°00'16.871"N	103°25'18.742"W	0.00	
14723.00†	90.000	179.648	9050.00	5918.93	-5918.82	36.36	823870.92	366535.38	32°00'15.881"N	103°25'18.744"W	0.00	
14823.00†	90.000	179.648	9050.00	6018.93	-6018.82	36.98	823871.54	366435.38	32°00'14.892"N	103°25'18.747"W	0.00	
14923.00†	90.000	179.648	9050.00	6118.93	-6118.82	37.59	823872.15	366335.39	32°00'13.902"N	103°25'18.750"W	0.00	
15023.00†	90.000	179.648	9050.00	6218.93	-6218.82	38.21	823872.76	366235.39	32°00'12.913"N	103°25'18.752"W	0.00	
15123.00†	90.000	179.648	9050.00	6318.93	-6318.81	38.82	823873.38	366135.39	32°00'11.923"N	103°25'18.755"W	0.00	
15223.00†	90.000	179.648	9050.00	6418.93	-6418.81	39.43	823873.99	366035.39	32°00'10.934"N	103°25'18.758"W	0.00	
15323.00†	90.000	179.648	9050.00	6518.93	-6518.81	40.05	823874.61	365935.39	32°00'09.944"N	103°25'18.760"W	0.00	
15423.00†	90.000	179.648	9050.00	6618.93	-6618.81	40.66	823875.22	365835.40	32°00'08.955"N	103°25'18.763"W	0.00	
15523.00†	90.000	179.648	9050.00	6718.93	-6718.81	41.28	823875.84	365735.40	32°00'07.965"N	103°25'18.766"W	0.00	
15623.00†	90.000	179.648	9050.00	6818.93	-6818.81	41.89	823876.45	365635.40	32°00'06.976"N	103°25'18.768"W	0.00	
15723.00†	90.000	179.648	9050.00	6918.93	-6918.80	42.51	823877.06	365535.40	32°00'05.986"N	103°25'18.771"W	0.00	
15814.74	90.000	179.648	9050.00	7010.67	-7010.54	43.07	823877.63	365443.66	32°00'05.078"N	103°25'18.773"W	0.00	No.2H PBHL



Planned Wellpath Report

Rev-B.0
Page 8 of 8



REFERENCE WELLPATH IDENTIFICATION

Operator	Red Mountain Resources	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Madera)	Wellbore	No.2H PWB
Facility	Madera 25 Federal No.2H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.2H PBHL	15814.74	9050.00	-7010.54	43.07	823877.63	365443.66	32°00'05.078"N	103°25'18.773"W	point

SURVEY PROGRAM - Ref Wellbore: No.2H PWB Ref Wellpath: Rev-B.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
23.00	15814.74	NaviTrak (Standard)		No.2H PWB

Job Information**Surface Casing**

Well Name: Madera 25 Fed

Well #: 2H

17-1/2" Hole

0 - 1100 ft (MD)

Inner Diameter

17.500 in

Job Excess

120 %

HOBBS OCD

Surface Casing

0 - 1100 ft (MD)

Outer Diameter

13.375 in

Inner Diameter

12.615 in

Linear Weight

54.50 lbm/ft

Thread

STC

Casing Grade

J-55

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Deliver 200 lbm of sugar to location at time of service

Calculations

Cement : (800.00 ft fill)

 $800.00 \text{ ft} * 0.6946 \text{ ft}^3/\text{ft} * 120 \% = 1222.56 \text{ ft}^3$ Total Lead Cement = 1222.56 ft³

= 217.75 bbl

Sacks of Cement = 700 sks

Cement : (300.00 ft fill)

 $300.00 \text{ ft} * 0.6946 \text{ ft}^3/\text{ft} * 120 \% = 458.46 \text{ ft}^3$ Tail Cement = 458.46 ft³

= 81.66 bbl

Shoe Joint Volume: (40.00 ft fill)

 $40.00 \text{ ft} * 0.868 \text{ ft}^3/\text{ft} = 34.72 \text{ ft}^3$

= 6.18 bbl

Tail plus shoe joint = 493.18 ft³

= 87.84 bbl

Total Tail = 366 sks

Job Recommendation

Surface Casing

Install floating equipment, run casing to bottom, and circulate a minimum of 2-3 hole volumes prior to cementing as follows:

Fluid Instructions

Fluid 1: Pump 20 bbl
Fresh Water

Fluid Volume: 20 bbl

Fluid 2: Pump 10 bbl
Fresh Water w/Red Dye
0.2 lbm/bbl Rhodamine Red Dye No. 2 (Special Additive)

Fluid Volume: 10 bbl

Fluid 3: Lead with 705 sks
ExtendaCem - CZ

Fluid Weight 13.50 lbm/gal
Slurry Yield: 1.75 ft³/sk
Total Mixing Fluid: 9.20 Gal/sk
Top of Fluid: 0 ft
Calculated Fill: 800 ft
Volume: 217.75 bbl
Calculated Sacks: 700.21 sks
Proposed Sacks: 705 sks

Fluid 4: Tail-in with 370 sks
HalCem - C
2 % Calcium Chloride - Flake (Accelerator)

Fluid Weight 14.80 lbm/gal
Slurry Yield: 1.35 ft³/sk
Total Mixing Fluid: 6.39 Gal/sk
Top of Fluid: 800 ft
Calculated Fill: 300 ft
Volume: 87.84 bbl
Calculated Sacks: 366.13 sks
Proposed Sacks: 370 sks

Estimated Slurry Properties:
Compressive Strengths @ 80 °F

12:00 1000 psi
24:00 2000 psi

Job Information**Intermediate Casing**

Well Name: Madera 25 Fed

Well #: 2H

Surface Casing	0 - 1100 ft (MD)
Outer Diameter	13.375 in
Inner Diameter	12.615 in
Linear Weight	54.50 lbm/ft
Thread	STC
Casing Grade	J-55
12-1/4" Hole	1100 - 5250 ft (MD)
Inner Diameter	12.250 in
Job Excess	100 %
Intermediate Casing	0 - 5250 ft (MD)
Outer Diameter	9.625 in
Inner Diameter	8.835 in
Linear Weight	40 lbm/ft
Thread	LTC
Casing Grade	N-80

Deliver 200 lbm of sugar to location at time of service

Calculations

Cement : (4750.00 ft fill)
 $1100.00 \text{ ft} * 0.3627 \text{ ft}^3/\text{ft} * 10 \%$ = 438.85 ft³
 $3650.00 \text{ ft} * 0.3132 \text{ ft}^3/\text{ft} * 100 \%$ = 2286.27 ft³
Total Lead Cement = 2725.12 ft³
= 485.36 bbl
Sacks of Cement = 1450 sks

Cement : (500.00 ft fill)
 $500.00 \text{ ft} * 0.3132 \text{ ft}^3/\text{ft} * 100 \%$ = 313.19 ft³
Tail Cement = 313.19 ft³
= 55.78 bbl

Shoe Joint Volume: (40.00 ft fill)
 $40.00 \text{ ft} * 0.4257 \text{ ft}^3/\text{ft}$ = 17.03 ft³
= 3.03 bbl
Tail plus shoe joint = 330.22 ft³
= 58.81 bbl
Total Tail = 249 sks

Job Recommendation

Intermediate Casing

Install floating equipment, run casing to bottom, and circulate a minimum of 2-3 hole volumes prior to cementing as follows:

Fluid Instructions

Fluid 1: Pump 20 bbl
Fresh Water

Fluid Volume: 20 bbl

Fluid 2: Pump 10 bbl
Fresh Water w/Red Dye
0.2 lbm/bbl Rhodamine Red Dye No. 2 (Special Additive)

Fluid Volume: 10 bbl

Fluid 3: Pump 1000 gallons
Super Flush 102

Fluid Volume: 23.80 bbl

Fluid 4: Pump 20 bbl
Gel Spacer
2.5 lbm/bbl WG-19 (Gelling Agent)

Fluid Volume: 20 bbl

Fluid 5: Lead with 1455 sks
EconoCem - HLC
5 % Salt (Salt)
5 lbm/sk Kol-Seal (Lost Circulation Additive)

Fluid Weight 12.90 lbm/gal
Slurry Yield: 1.88 ft³/sk
Total Mixing Fluid: 9.61 Gal/sk
Top of Fluid: 0 ft
Calculated Fill: 4750 ft
Volume: 485.36 bbl
Calculated Sacks: 1450.30 sks
Proposed Sacks: 1455 sks
12:00 400 psi
18:00 500 psi
24:00 600 psi

Estimated Slurry Properties:

Fluid 6: Tail-in with 250 sks
HalCem - C

Fluid Weight 14.80 lbm/gal
Slurry Yield: 1.33 ft³/sk
Total Mixing Fluid: 6.34 Gal/sk
Top of Fluid: 4750 ft
Calculated Fill: 500 ft
Volume: 58.81 bbl
Calculated Sacks: 249.03 sks
Proposed Sacks: 250 sks
12:00 600 psi
24:00 2600 psi

Estimated Slurry Properties:

Job Information***Pilot Hole Plugback***

Well Name: Madera 25 Fed

Well #: 2H

Intermediate Casing	0 - 5250 ft (MD)
Outer Diameter	9.625 in
Inner Diameter	8.835 in
Linear Weight	40 lbm/ft
Thread	LTC
Casing Grade	N-80
8-3/4" Pilot Hole	5250 - 9350 ft (MD)
Inner Diameter	8.750 in
Drill Pipe	0 - 9350 ft (MD)
Kick-off Plug	8300 - 8700 ft (MD)
Plugback Plug	8700 - 9350 ft (MD)

Deliver 200 lbm of sugar to location at time of service

Job Recommendation**Pilot Hole Plugback**

Drill 8-3/4" Pilot Hole to 9350 ft (MD) Plugback and set Whipstock plug from 9350 ft (MD) to 8300 ft (MD) as follows:

1. Trip in the hole with Drill Pipe to 9350 ft (MD)
2. Condition hole and well fluid to balance
3. Mix and pump 290 sacks of PlugCem - H w/additives at 15.6 lbm/gal
4. Displace to balance [Plug 8700 ft (MD) - 9350 ft (MD)]
5. Pull drill pipe to 8700 ft (MD)
6. Reverse tubulars clean
7. Pull 2-3 stands circulate and WOC 4 hours
8. Run Drill pipe back to 8700 ft (MD)
9. Mix and pump 210 sacks of PlugCem - H w/additives at 17.0 lbm/gal
10. Displace to balance [Plug 8300 ft (MD) - 8700 ft (MD)]
11. Pull drill pipe to 8300 ft (MD)
12. Reverse tubulars clean
13. Pull Drill Pipe and stand back
14. WOC 24 hours minimum
15. Pick-up steering tools & bit
16. Resume drilling and Kick-off

Fluid Instructions

Plugback Plug 8700 - 9350 ft (MD)

Plug 1

Fluid 1: Mix and pump 290 sks

PlugCem - H

0.5 %	Halad®-322 (Low Fluid Loss Control)
0.3 %	HR-800 (Retarder)

Fluid Weight	15.60 lbm/gal
Slurry Yield:	1.19 ft ³ /sk
Total Mixing Fluid:	5.36 Gal/sk
Volume:	61.67 bbl
Proposed Sacks:	290 sks

Kick-off Plug 8300 - 8700 ft (MD)

Plug 2

Fluid 1: Mix and pump 210 sks

PlugCem - H

0.8 %	Halad®-322 (Low Fluid Loss Control)
0.3 %	HR-800 (Retarder)

Fluid Weight	17 lbm/gal
Slurry Yield:	1.00 ft ³ /sk
Total Mixing Fluid:	3.89 Gal/sk
Volume:	37.48 bbl
Proposed Sacks:	210 sks

Job Information***Production Casing***

Well Name: Madera 25 Fed

Well #: 2H

Intermediate Casing	0 - 5250 ft (MD)
Outer Diameter	9.625 in
Inner Diameter	8.835 in
Linear Weight	40 lbm/ft
Thread	LTC
Casing Grade	N-80
8-3/4" Hole	5250 - 9300 ft (MD)
Inner Diameter	8.750 in
Job Excess	25 %
2nd Stage DV Tool	5700 ft (MD)
Production Casing	0 - 9300 ft (MD)
Outer Diameter	5.500 in
Inner Diameter	4.892 in
Linear Weight	17 lbm/ft
Thread	BUTTRESS
Casing Grade	HCP110
Hydraulic DV Tool	9300 ft (MD)
Production Casing w/Sleeves and Packers	9300 - TD ft (MD)
Deliver 200 lbm of sugar to location at time of service	

Calculations**Production Casing**

Stage 1

Cement : (2750.00 ft fill)
2750.00 ft * 0.2526 ft³/ft * 25 % = 868.30 ft³
Total First Stage Lead Cement = 868.30 ft³
= 154.65 bbl
Sacks of Cement = 473 sks

Cement : (1000.00 ft fill)
1000.00 ft * 0.2526 ft³/ft * 25 % = 315.74 ft³
First Stage Tail Cement = 315.74 ft³
= 56.24 bbl

Shoe Joint Volume: (40.00 ft fill)
40.00 ft * 0.1305 ft³/ft = 5.22 ft³
= 0.93 bbl
Tail plus shoe joint = 320.97 ft³
= 57.17 bbl
Total Tail = 254 sks

Stage 2

Cement : (2000.00 ft fill)
2000.00 ft * 0.2607 ft³/ft * 0 % = 521.50 ft³
Total Second Stage Lead Cement = 521.50 ft³
= 92.88 bbl
Sacks of Cement = 276 sks

Cement : (500.00 ft fill)
50.00 ft * 0.2607 ft³/ft * 0 % = 13.04 ft³
450.00 ft * 0.2526 ft³/ft * 25 % = 142.08 ft³
Second Stage Tail Cement = 155.12 ft³
= 27.63 bbl
Total Tail = 117 sks

Job Recommendation

Production Casing

Install floating equipment, run casing to bottom. Space out packers and set, open Lower (Hydraulic) DV Tool and circulate a minimum of 2-3 hole volumes prior to cementing as follows:

Fluid Instructions

Stage 1

Fluid 1: Pump 20 bbl

Fresh Water

Fluid Volume: 20 bbl

Fluid 2: Pump 1000 gallons

Fresh Water w/Red Dye

0.084 lbm/bbl Rhodamine Red Dye No. 2 (Special Additive)

Fluid Volume: 23.80 bbl

Fluid 3: Pump 40 bbl

Gel Spacer

2.5 lbm/bbl WG-19 (Gelling Agent)

Fluid Volume: 40 bbl

Fluid 4: Lead with 475 sks

EconoCem - HLH

3 % Salt (Salt)

2 lbm/sk Kol-Seal (Lost Circulation Additive)

Fluid Weight 12.90 lbm/gal

Slurry Yield: 1.84 ft³/sk

Total Mixing Fluid: 9.68 Gal/sk

Top of Fluid: 5550 ft

Calculated Fill: 2750 ft

Volume: 154.65 bbl

Calculated Sacks: 472.67 sks

Proposed Sacks: 475 sks

Fluid 5: Tail-in with 255 sks

VersaCem - H

0.6 % Halad®-9 (Low Fluid Loss Control)

2.87 lbm/sk KCL (Additive Material)

0.2 % HR-800 (Retarder)

Fluid Weight 14.40 lbm/gal

Slurry Yield: 1.26 ft³/sk

Total Mixing Fluid: 5.63 Gal/sk

Top of Fluid: 8300 ft

Calculated Fill: 1000 ft

Volume: 57.17 bbl

Calculated Sacks: 253.93 sks

Proposed Sacks: 255 sks

2nd Stage DV Tool @ 5700 ft (MD)

Job Recommendation

Production Casing

Fluid Instructions

Stage 2

Fluid 1: Pump 20 bbl
Fresh Water

Fluid Volume: 20 bbl

Fluid 2: Pump 1000 gallons
Super Flush 101

Fluid Volume: 23.80 bbl

Fluid 3: Pump 20 bbl
Gel Spacer
2.5 lbm/bbl WG-19 (Gelling Agent)

Fluid Volume: 20 bbl

Fluid 4: Lead with 280 sks
EconoCem - HLC

Fluid Weight 12.60 lbm/gal
Slurry Yield: 1.89 ft³/sk
Total Mixing Fluid: 10.31 Gal/sk
Top of Fluid: 3200 ft
Calculated Fill: 2000 ft
Volume: 92.88 bbl
Calculated Sacks: 276.07 sks
Proposed Sacks: 280 sks

Fluid 5: Tail-in with 120 sks
HalCem - C

Fluid Weight 14.80 lbm/gal
Slurry Yield: 1.33 ft³/sk
Total Mixing Fluid: 6.34 Gal/sk
Top of Fluid: 5200 ft
Calculated Fill: 500 ft
Volume: 27.63 bbl
Calculated Sacks: 116.99 sks
Proposed Sacks: 120 sks

HOEBS OCD

OCT 23 2013

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**MADERA 25 #2H
27 STAGE
SUPER-PORT FRAC SYSTEM**



Well Details

- 8.75" Open-Hole Lateral Section
- 9 5/8" 36 & 40ppf Intermediate Casing
- 5 1/2", 17ppf, P-110, BTC Production Liner
- 27 Stage 7.75" x 5.5" Predator Multi-Frac System
- 2 Stage Cement Job utilizing 3 Stage system

SYSTEM ADVANTAGES

- Single Trip system utilizing Open Hole Isolation packers to eliminate the need for cementing the heel section
- Zones are treated individually and treatment point is known at all times through selective sleeve actuation
- Integral dual anti-preset system ensures that packers will not set or drag during installation process
- Combined with patented milling tool, reduced seat mill out times save operators time and money
- Proven Peak System reduces mechanical risk, decreases completion time, reduces overall completion cost while yielding better production results

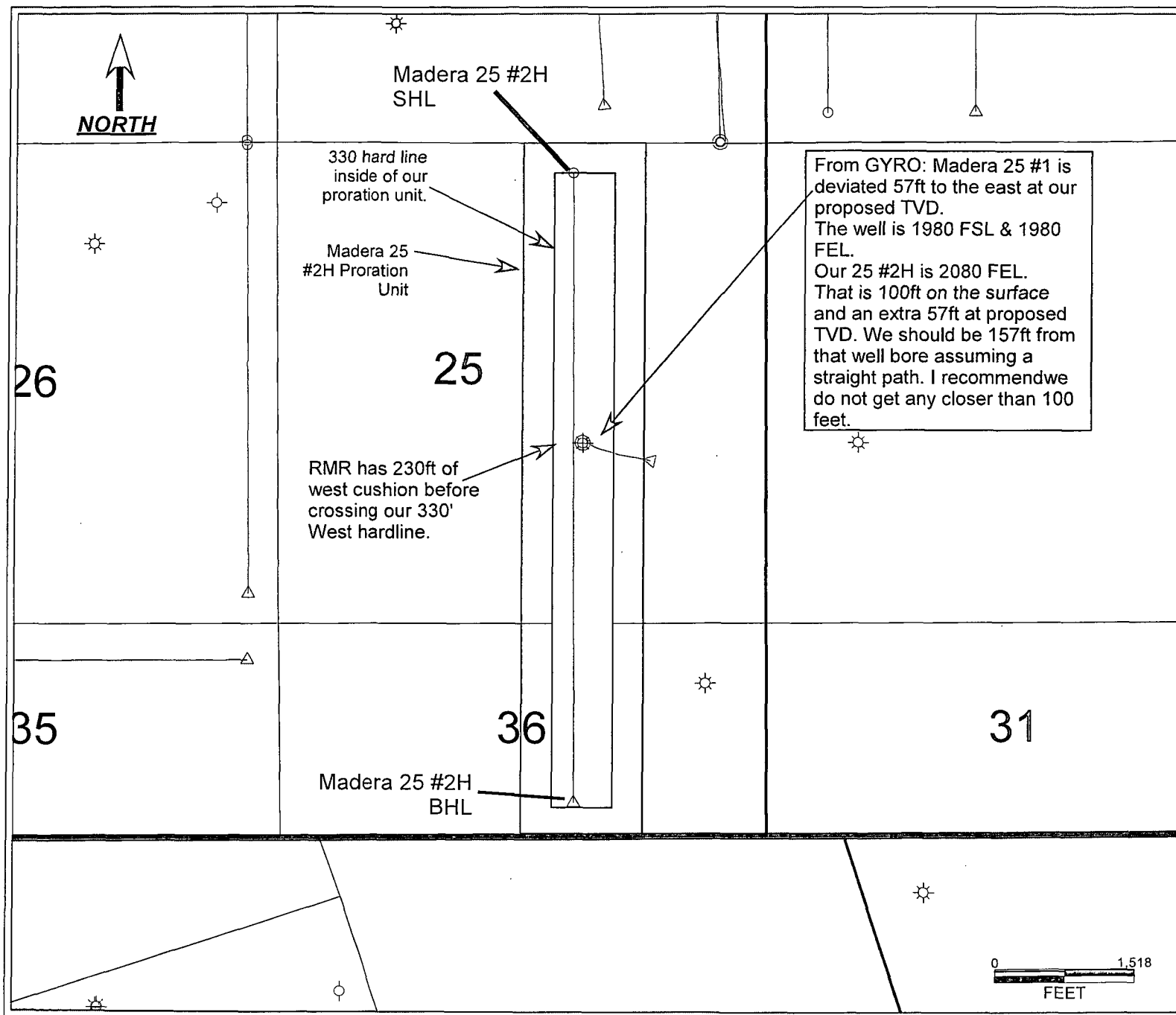
Super-Port 27 Stage Size Breakdown

Stage	Seal	Ball
1	N/A	Hyd
2	2.646	2.688
3	2.709	2.750
4	2.771	2.813
5	2.834	2.875
6	2.896	2.938
7	2.959	3.000
8	3.021	3.063
9	3.084	3.125
10	3.146	3.188
11	3.209	3.250
12	3.271	3.313
13	3.334	3.375
14	3.396	3.438
15	3.459	3.500
16	3.521	3.563
17	3.584	3.625
18	3.646	3.688
19	3.709	3.750
20	3.771	3.813
21	3.834	3.875
22	3.896	3.938
23	3.959	4.000
24	4.021	4.063
25	4.084	4.125
26	4.146	4.188
27	4.209	4.250

1.80 SG PREDATOR X FRAC BALLS

P-110 PREDATOR DUAL ELEMENT FRAC PKRS





Conditions of Approval
RMR Operating, LLC.
Madera 25 Fed Com 2H

1. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement not required – Packer/Port system to be used.

b. Second stage above DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

c. Third stage above DV tool:

☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

CRW 102213